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AN INTRODUCED ANOBIID BEETLE DESTRUCTIVE
TO HOUSES IN THE SOUTHERN STATES.

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A European anobiid Beetle, *Nicobium hirtum* Illiger, generally almost unknown in this country, although long established in the Gulf States, has recently been shown to be the cause of numerous reports of serious injury to woodwork in houses. This beetle, whose range now extends northward to South Carolina and Virginia, is most commonly found damaging old, well-seasoned furniture, although also attacking the yellow pine woodwork of buildings. It was listed by Leconte in 1865² as present in this country and a specimen is in the U. S. National Museum that was taken at Lake Ashby, Florida, by Hubbard and Schwarz in June, 1875 or 1876, as recorded by Schwarz in 1878.³

Its work is sometimes mistaken for that of dry-wood termites, as it burrows similarly in dry wood, from which fall pellets of the excreted wood (Fig. 1). These pellets are quite different from the bun-shaped pellets (Fig. 2) of the European "Death Watch Beetle" (*Xestobium rufovillosum* Deg.), which is a pest of woodwork in New England and in the Central Western States.

Adults of *Nicobium hirtum* (Fig. 4) were reared from June 2 to 20, 1932 at Washington, D. C., from a badly honeycombed piece of wood, a portion of a Duncan Phyfe piece of furniture from Charleston, S. C., dating back to 1800 or 1830. The adults are typical anobiid beetles, subcylindrical,

¹ The photographs are by J. G. Pratt, the drawing of the adult (Fig. 3) by Harry Bradford, and the drawing of the larva (Fig. 6) by Dr. A. Böving.

² Leconte, J. L. Prodromus of a monograph of the species of the tribe Anobiini, of the family Ptinidae, inhabiting North America. Acad. Nat. Sci., Phila. Proc., 1865, pp. 222-244.

³ Schwarz, E. A. Coleoptera of Florida. Amer. Philos. Soc. Proc. 17:353-469. 1878.

twice as long as wide, averaging about 4 mm. in length; the upper surface is of a mottled brown color, and is furnished with long, erect hairs. On the elytra are a series of distinctly impressed, longitudinal striae, marked with coarse, closely set punctures, and the pronotum is sparsely covered with small, shining black granules.

Nine eggs were dissected from one of the females to learn their appearance and thus facilitate the search for them, and afterwards some were found inside of the exit burrows. They had been deposited singly or in pairs on pellets of excrement or in the finer, fluffy frass not compressed into pellet form (Fig. 6). The eggs are about 0.625 mm. in length and about 0.42 mm. in diameter, with a pitted, reticulate, or honeycombed sculpturing as shown in the photograph. The eggs evidently require from 10 days to 2 weeks to hatch. Some infertile eggs were found in August.

The eggs were deposited in wood so disintegrated that it could be crumbled between the fingers (Fig. 3) and in consequence the active, legged larvae (Fig. 5) must do considerable free crawling or else plug up the old burrows which their own burrows intersect. The larvae have very long hairs and horizontal rows of yellow-brown spinules curving backward on the tergites. These spinules are thickest at the base. The spiracles are cribriform. On June 28, newly emerged larvae and some that were slightly larger were found, and on July 16 and August 2, additional freshly emerged larvae were observed. The pupal cell (Fig. 7) is constructed by the larvae of pellets of excrement cemented together, and these pellets on the interior surface of the cell are gnawed off to obtain a smooth surface.

Damage to the woodwork of houses was found in September, 1934, at New Orleans, La., and at Palatka, Fla., where the beetles in both cases were mining in yellow pine timbers.

PLATE III.—The Biology of *Nicobium hirtum* Ill.

Figure 1. — Pellets of excreted wood made by *Nicobium hirtum* Ill.

(Enlarged 10 times.)

Figure 2. — Bun-shaped pellets of excrement of the European Death Watch Beetle (*Xestobium rufovillosum* Deg.)

(Enlarged 10 times.)

Figure 3. — Wood honeycombed by *Nicobium hirtum* Ill., showing exit holes of adult beetles.

(One-half natural size.)

Figure 4. — Adult of *Nicobium hirtum* Ill.

(Enlarged approximately 15 times.)

Figure 5. — Larva of *Nicobium hirtum* Ill.

(Enlarged approximately 15 times.)

Figure 6. — The egg of *Nicobium hirtum* Ill. Note the soft frass nearby.

(Enlarged 14 times.)

Figure 7. — Pupal cells of *Nicobium hirtum* Ill. made of pellets of excreted wood cemented together.

(Enlarged 3½ times.)